DAKOTA ZEPHYR

SEPTEMBER 1935 VOL I NUMBER 4

SOIL CONSERVATION SERVICE

U.S.

DEPARTMENT OF AGRICULTURE

PROJECT No. 33, HURON, S. DAK.

THE SOIL CONSERVATION SERVICE IN SOUTH DAKOTA

By H. J. Clemmer, Regional Director.

The Soil Conservation Service, a branch of the United States Department of Agriculture, under the direction of H. H. Bennett, has established three wind erosion control projects in the state of South Dakota. The first of these demonstration areas was established January 15, 1935, in Beadle County, with Huron as project headquarters. This area consists of two projects, the Shue Creek Area consisting of 144,000 acres and the Wolsey area consisting of 46,000 acres. The last area, established in July, 1935, has an extent of 49,280 acres and is between Winner in Tripp County and Dixon in Gregory County. Winner is headquarters.

In addition to the wind erosion control projects, the SCS has under its direct supervision three CCC Camps which are doing water conservation and erosion control work. Camps are located at Presho in Lyman County, Crow Creek in Buffalo County and Alcester in Union County. Two additional camps have been allotted in South Dakota for the sixth period, with locations at Belle Fourche in Butte County and at Crow Creek in Buffalo County. The second camp at Crow Creek is to assist in completing the large dam under construction there.

The Soil Conservation Service project activities include Engineering, Agronomy, Soils, Forestry, Farm Management, Game Conservation, and Education & Information. The activities involved are carried out with close cooperation with the State College, Extension Service, and all Government Agencies.

Engineering involves all operation of equipment, used in leveling field and fence drifts, terracing and measures dealing with water conservation, flood control and gully control structures.

Agronomy deals with the crop rotation system involving arrangement of fields, strip cropping, contour farming where practicable, seeding of certain areas to grass or legumes and such temporary or permanent measures required in the control of wind erosion.

Soils men map each individual farm, giving complete farm layout, fence and building locations, contour and degree of slope, and the different soil types on the farm. The soil type classifications are used by the agronomists as a basis in working out a suitable crop rotation for each farm.

The Forestry branch makes a forestry survey, working out with the farmers a suitable tree planting program aimed at the ultimate growing of windbreaks, and shelterbelts for farm protection.

The Game Conservation activities are closely allied to the Forestry work in the planting of suitable seed bearing trees and shrubs for bird food and cover. These plantings aid also in wind erosion control.

Farm Management deals with the farm program, including all activities in the general practices, and the keeping of farm records. This work is handled by the contact men who go to the farms, make all contacts, explain the program and get the contracts signed.

Education and Information prepares news letters and articles, radio addresses and speeches when requests for information about soil conservation are made -- are in close cooperation with the Extension Service.

THE DAKOTA ZEPHYR

Published Monthly
For the Benefit of Soil Conservation Cooperators
By the Staff of Soil Conservation Project No. 33
United States Department of Agriculture
Huron, South Dakota
H. J. Clemmer, Regional Director

Editor: J. G. Hutton Contributors: Members of the Staff

Volume 1. September, 1935 No. 4

Greetings, Cooperators and Friends! Here is your September "Zephyr." It contains information of interest to all of you. Please file it with the earlier numbers and you will have them all when you want them. We have marked the place on the front cover where you might punch holes and tie them together with a cord or shoe string.

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We have had many requests from people who wish to have their names on the mailing list and we hope the coming numbers of the "Zephyr" may not disappoint them.

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Any comments or suggestions you may care to make as to the making of a better news letter will receive careful consideration.

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Soil conservation has become one of the greatest undertakings of our government. Thinking people are coming to realize that the nation's greatest natural resource must not be wasted nor permitted to deteriorate through improper use. From the time of Washington our greatest men have recognized this fact, but it is only recently that people in general have begun to appreciate it.

It seems strange that for so long a time the soil should have been considered just as something to exploit rather than as the source of all life. The greatest thing about the soil is its significance in human existence.

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Soil Conservation Associations are being formed by landowners in South Dakota. If you have a soil conservation problem in your locality, it would be well to write to the Soil Conservation Service at Huron, South Dakota, and state the nature of the difficulty.

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SOIL EROSION EXHIBIT AT THE

SOUTH DAKOTA STATE FAIR.

HURON, S. D. SEPT. 9-14, 1935.

The following is from the Evening Huronite of September 10, 1935:

"Manifestation of interest in the exhibits in the Agricultural Building is in a large measure centered in that prepared by the Soil Conservation Service.

"The farm of August Jungemann near Wolsey is displayed in miniature as a "Before" and "After" exhibit. The "Before" exhibit shows the actual buildings and fields in the condition they were last spring. The fields are blown bare, the fences covered with sand, and the trees are dead.

"The "After" display shows the farm as it is expected to be in several years, and demonstrates the planning of the Soil Conservation Service. The drifted soil has been removed from the fences, the fields have been laid out on the diagonal at right angles to the prevailing winds and they have been planted to crops providing a rotation of corn, small grain, and sweet clover. Sufficient acreage of alfalfa, pasture, and grain crops has been provided for the livestock that should be raised on a farm.

"In addition, windbreak and shelter belt plantings of trees have been provided. Certain modifications in the arrangement of buildings have been made which it is believed will make the management of the farm easier.

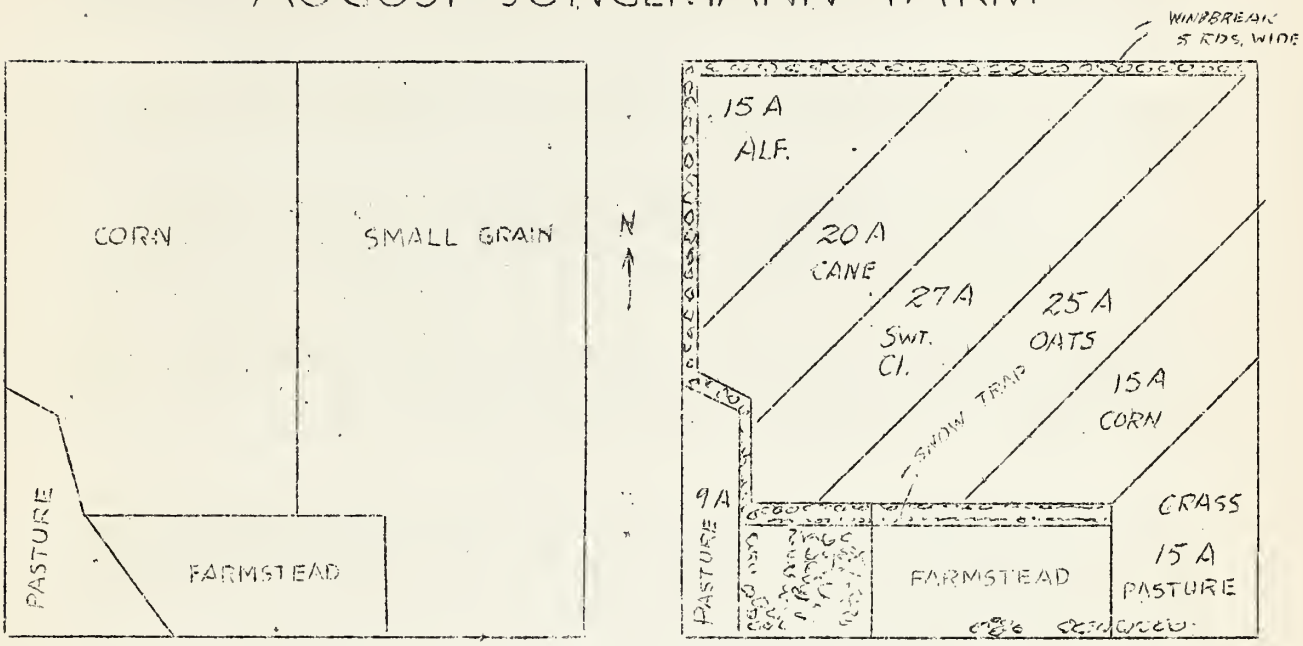
"In arriving at these changes, the Soil Conservation experts have surveyed the soils on the farm to determine their adaptability for cropping. Then the agronomists planned a rotation, keeping in mind the maintainence of fertility and the prevention of future soil drifting. The engineers took charge of removing the soil from the fence rows and leveling the drifted fields. They listed the fields and the agronomists assisted in planting the legume and grass seed which was furnished by the government. The foresters assisted in planting the trees and the wild life management experts will aid in re-establishing small game and upland birds.

"The farms are complete in every detail from an exact replica of the house and barns down to the meadow lark that is perched on the fence, the pheasants that feed in the fields, and the skunks that hide among the trees.

"In addition, there is exhibited a number of crop and weed plants and seeds. Considerable attention is attracted by the soil profiles, which are five feet vertical columns of soil dug from the fields and showing the exact character of the lower layers of soil.

"The exhibit shows in striking fashion the variety and extent of the service that may be had by farmers living in the demonstration areas who desire it. It shows that soil conservation is not limited to stopping soil erosion but that the federal department has in mind a permanent soil saving policy that is aimed toward making the demonstration areas models of farming efficiency."

PLAN
OF
AUGUST JUNGEMANN FARM



BEFORE & AFTER

COOPERATIVE AGREEMENT WITH THE SOIL CONSERVATION SERVICE. – U.S.D.A.

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Every farm is a separate problem. This sketch illustrates the adjustment of Mr. Jungemann's farm to meet the requirements of efficient utilization of soil types, the control of drifting soil, good crop rotation, and diversification. In the case of many farms, the recommended changes may be much simpler and in others more complex. The simplest readjustment consistent with the results to be obtained is always to be preferred.

CHIEF OF THE SOIL CONSERVATION SERVICE

VISITS SOUTH DAKOTA

Mr. H. H. Bennett of Washington, D. C., Chief of the Soil Conservation Service spent September 22nd and 23rd in South Dakota to inspect the work in the project areas and to confer with Regional Director, H. J. Clemmer, concerning the progress of the work. He was on a trip to visit several of the projects in the different states.

As Head of the Soil Conservation Service, he directs the work of about 2,500 specialists, 100,000 men in Emergency Conservation Work camps, and 8,000 relief workers.

A practical cotton farmer in North Carolina, Mr. Bennett has been for many years on the soils staff of the United States Department of Agriculture and has for more than a quarter of a century been interested in soil conservation. He has a wide knowledge of soil conditions and has written many magazine and newspaper articles as well as a large number of scientific bulletins and books dealing with soils. He has long been interested in the soil of the northwest, having surveyed the soils of one county in this region 28 years ago.

Mr. Bennett made tours over the project area and saw the soil conditions in adjacent areas as well. He was very encouraging in his comments and feels sure that with the cooperative program now in progress, the complete recovery of the soils in the drifted area may be greatly hastened, the wounds healed, and the scars removed.

Those who have known Mr. Bennett for many years know that he is not a man of idle words but that what he says, he really means. For this reason, his visit and his comment on soil conditions in the northwest should encourage everyone to keep on in what, as he said, "Will be a winning cause if everyone will do his part, for soil conservation needs everybody on the job."

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STAFF NOTES

E. H. Aicher and O. Leon Anderson of the Agronomy Staff have gone to Great Falls, Montana to help in getting the Montana Soil Conservation project under way, and D. M. Hall has gone to Park River, North Dakota, for a similar purpose.

Leland M. Sloan, who has been a member of the Agronomy staff at Huron, is now in charge of the recently authorized Soil Conservation project in Tripp and Gregory Counties, South Dakota. This is known as the Winner-Dixon project.

Mr. T. H. Benton, Chief Soil Expert, of the Washington office, was in South Dakota for a few days during the latter part of September relative to the detailed soil erosion surveys now being made by the soil men on farms in the demonstration areas.

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SOIL CONSERVATION PROGRAM NOW ON A PERMANENT BASIS

Because of its vital interest to cooperating farmers as well as to the public in general, it should be generally known that the 74th Congress on April 27, 1935, took steps "To provide for the protection of land resources against soil erosion, and for other purposes."

The Act directed the Secretary of Agriculture to coordinate all activities with relation to soil erosion and in order to accomplish this end,he is empowered, among other things, to conduct surveys, investigations, and research relating to the character of soil erosion and preventive measures needed; to carry out preventive measures; to cooperate or enter into agreements with, or to furnish financial or other aid to any Agency, governmental or otherwise; to secure the cooperation of any governmental agency.

The Act provides that the Secretary shall establish an Agency to be known as the "Soil Conservation Service" and also authorizes Congress to appropriate such sums for the purposes of this Act as it may from time to time determine to be necessary.

On April 27, 1935, when the Act was approved, the Secretary of Agriculture designated the Soil Erosion Service, an emergency organization then in the Department of Interior, as the Agency to carry out the provisions of the Act. Thus, the Emergency Soil Erosion Service became the permanent Soil Conservation Service.

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A MESSAGE
FROM THE SECRETARY OF AGRICULTURE.

Soil erosion control, to be effective, permanent, and economically feasible, involves more than the use of vegetative and engineering methods. It involves, also, general land-use planning, proper crop rotations, controlled livestock grazing, and the application of other sound farm-management practices. Hence, practically every branch of the Department is concerned, should be called on, and should cooperate at all times in shaping and carrying forward a practicable program. Similarly, the Soil Conservation Service should cooperate with the other branches of the Department in order to utilize to the greatest extent possible all existing resources and information.

It is largely through cordial working agreements with the State Colleges, the Experiment Stations, and the Extension Services that the Department is accustomed to reach the individual farmer. And it is upon such agencies that we are relying for practical assistance in making the soil conservation program effective.

(Con't on next page)

Many have spoken to me of the sincere desire of officials in all branches to help make this new undertaking a truly successful one. I am very much gratified, too, by reports coming to me from the field. The spirit which pervades soil conservation ranks everywhere enables us to go forward with confidence.

H. A. Wallace.

From "Soil Conservation ", Vol. 1., No.1.,August, 1935.

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DUST CREATES ATTIC CLEANING BUSINESS.

(Rapid City, South Dakota, Journal, September 20, 1935)

"Destructive dust storms opened a new source of revenue for Fred Bailey in Dodge City, Kansas.

Accumulated dust storms collapsed ceilings in two houses he owned, so he obtained an oversize carpet sweeper, hired a crew of men and did a little advertising.

Since the storms abated, Bailey and his "gang" have "dusted" 227 attics in southwestern Kansas homes, removing from one to two tons of dust from each."

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The damage done to buildings and household equipment by dust storms is enormous, when we come to sum it all up. The cost of extra cleaning equipment and supplies and the amount of extra house-cleaning, add greatly to the cost of repairing damage done by dusty winds.

After dusty days have added greatly to the discomfort of many people, it should be remembered that there is an increasing tendency of soils to blow and that every effort should be made to establish a farming system that will keep the soil covered throughout the year. Observations made in parts of eastern South Dakota, on September 23rd show that now is the time to attack the problem of soil drifting and control it with relative ease before it reaches a disastrous stage.

Soil Conservation Associations may be formed by groups of interested farmers and land owners for the purpose of controlling soil erosion and some assistance secured from the Soil Conservation Service.

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F I E L D T R I P S

The first public tour of the Soil Conservation project was conducted September 17th at the request of the Northwest Farm Real Estate Association meeting in Huron at that time. Forty-three visitors made the complete tour of about sixty-five miles from Huron to the Wolsey Area and return.

Mimeographed booklets showing the route of the tour, a soil map of the Area, a map of the Wolsey and Shue Creek projects, and maps of the August Jungemann farm before and after the revised plan was adopted, together with several pages of explanation of points of interest along the route furnished the visitors with information as they passed through the project area.

Stops were made at several points of especial interest where the visitors were able to observe the damage done by drifting soils as well as the methods and kinds of machinery used in controlling soil drifting. At each stop a member of the Soil Conservation Service explained the situation and the cooperating farmer also told of the work being accomplished. The tour ended three miles northeast of Wolsey where a general conference made it possible for the visitors to ask questions and make suggestions.

A similar tour for fifteen representatives of the Federal Land Bank of Omaha was conducted during the forenoon of September 23, 1935.

A general invitation is extended to the public to visit the demonstration areas and, where desired, members of the staff will conduct groups of visitors on tours of inspection.

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R A D I O

Through the courtesy and generosity of the management of the Radio Stations, KGDY, Huron, South Dakota, and KFDY, State College, Brookings, South Dakota, the Soil Conservation Service is able to bring you two talks on Soil Conservation each week. Members of the project staff discuss the various phases of soil conservation. Your comments on the programs will be appreciated.

Tune in:

KGDY -- Thursdays at 1:30 P. M.

KFDY -- Saturdays at 12:45 P. M.

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STOP ** LOOK ** THINK

Pastures -- Thistles Vs. Grass.

The largest part of the vegetation in the pastures this year is and has been Russian thistles and peppergrass. These formed a good pasture during the early part of the summer but now are worthless.

The Soil Conservation Service is willing to furnish grass seed to COOPERATORS to RESEED these pastures so that a permanent sod may be formed.

One of the most successful methods of stopping erosion by the wind is to provide a permanent cover which will prevent the erosion from starting.

We would suggest that each cooperator INVESTIGATE the condition of his PASTURE. If the covering is mostly thistles or other weeds, and RESEEDING is NECESSARY, prepare to follow one of the following suggestions:

First -- Sow grass seed late this fall after all possibility of the seed germinating is past.

Second -- Sow to rye this fall for either pasture or seed crop and sow grass seed in the rye stubble next summer.

Investigate -- Consider -- Decide.

I. N. Chapman,
Chief Conservationist in Farm Management.

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ADDITIONS TO THE LIST OF COOPERATORS

SINCE LAST REPORT

Name.	Address	Owner or Tenant	Description
Crouse, Frank	Carpenter, S. D.	Tenant	SE¼ 28--114-59
Madsen Brothers	Carpenter, S. D.	Owner	
Feicke, John H.	Yale, S. Dak.	Tenant	S½-NE¼ & SW¼ 5--112-59
Farmers & Merchants Savings Bank	Minneapolis, Minn.	Owner	Lots 1 & 2.
Lund, H. E.	Carpenter, S. D.	Owner	W½ 23--114-59
Madsen Brothers	Carpenter, S. D.	Owner	NE¼ 8--114-59 S½ 33--114-59

List of Cooperators (Con't)

Name	Address	Owner or Tenant	Description
Opshal, M. C.	Carpenter, S. D.	Owner	NW¼ & SE¼ 21--114-59
Buckley, Herbert	Cavour, S. Dak.	Tenant	NW¼ 30--112-60
Reese, Mrs. Sheldon	Huron, S. Dak.	Owner	
Buckley, H. W.	Cavour, S. Dak.	Tenant	S½ 20--112-60
Crosby, G. E.	Winnebago, Minn.	Owner	S½ SW¼ 21--112-60
Clausen, Mrs. E. E.	Huron, S. Dak.	Owner	SW¼ 17--111-60
Haeder, Ernest	Yale, S. Dak.	Tenant	NW¼ 1--111-60
Peterson, Wm.	Huron, S. Dak.	Owner	
Haeder, Ernest	Yale, S. Dak.	Tenant	NE¼ 1--111-60
Farmers State Bank	Yale, S. Dak.	Owner	
Haeder, Ernest	Yale, S. Dak.	Tenant	SE¼ 1--111-60
Musolf, W. F.	Yale, S. Dak.	Owner	
Hohm, Albert	Yale, S. Dak.	Tenant	N½ 15--112-60
Equitable Life Assurance Co.	Huron, S. Dak.	Owner	
Lemke, C. W.	Cavour, S. Dak.	Tenant	N½ 26--111-60
Lemke, Marie	Cavour, S. Dak.	Owner	
Moag, W. E.	Cavour, S. Dak.	Owner	E½-SE¼ 3--110-60 S½ 2--110-60
Ratliff, John	Carpenter, S. D.	Owner	W½-NW¼ & SW¼ 24--114-60 N½ & SE¼ 23--114-60
Schied, George	Cavour, S. Dak.	Tenant	NW¼ 28--111-60
Lyon, R. M.	Detroit, Mich.	Owner	
Bush, Wm. H.	Huron, S. Dak.	Owner	NE¼ 34--111-61
Gutormson, O. S.	Huron, S. Dak.	Owner	NE¼-NE¼ 16--110-61
Johnson, Ray	Huron, S. Dak.	Tenant	SW¼ 26--111-61
Gustraw, Julius	Owatonna, Minn.	Owner	
Ramsell, A. V.	Huron, S. Dak.	Owner	SE¼ 15--111-61 NE¼ 22--111-61
Trams, Elmer	Huron, S. Dak.	Tenant	W½ 23--110-61
Willard, Mrs.	Huron, S. Dak.		
Barth, Christ	Wolsey, S. Dak.	Owner	NE¼ 20--110-63 SE¼ 17--110-63

List of Cooperators (Con't)

Name	Address	Owner or Tenant	Description.
Fuhrman, Frank	Cleghorn, Ia.	Owner	NE¼ 31--112-63
Joblinski, Fred	Wolsey, S. D.	Tenant	N½ & SW¼ 9--110-63
Booth, F. W.	Omaha, Nebr.	Owner	
Karnstmum, Marie	Huron, S. Dak.	Owner	S½ 6--112-63 NW¼ 7--112-63
Mackey, Ralph	Belvidere, Ill.	Owner	N½ & SE¼ 5--111-63
Morse, S. K.	Wolsey, S. Dak.	Tenant	NE¼ 30--112-63
Federal Land Bank of Omaha	Omaha, Nebr.	Owner	
Reineke, Herman	Wolsey, S. Dak.	Tenant	SE¼ &NW¼ 4--110-63
Joint Land Stock Bank	Minneapolis, Minn.	Owner	
Allen, Guy	Salem, Ore.	Owner	SE¼ 34--112-64
Hoskins, R. D.	Wolsey, S. Dak.	Owner	SE¼ 24--111-64
Jungemann, Fred	Wolsey, S. Dak.	Owner	N½ & SE¼ 23--112-64
Koester, John	Wolsey, S. Dak.	Owner	SE¼ 12--111-64
Larsen, Lawrence	Wolsey, S. Dak.	Owner	W½-NW¼ & SW¼ 33-112-64 NW¼ 4--111-64.

The total number of farms in the above list is 33, comprising 9, 136 acres.

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Since the beginning of the project last spring, a total of 146 farm agreements has been signed and the total number of acres under agreement is 35,836.

Applications now on file, but agreements not signed, total 126 and include 35,612 acres.

If your farm lies in the project area and needs attention, it would be well to send in your application at once.

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NEWS FROM THE CONSERVATION CAMPS

CAMP SCS-1, WISHEK, NORTH DAKOTA

Camp SCS-1 located at Wishek, N. Dak. reports the completion of four dams with five others now under construction. These projects are all earth fill since no sites for masonry (rubble) dams can be found here.

These dams contain a total earth fill of 30,250 cu. yards, with 900 cu. yards of rubble masonry paved spillways, and will impound 540 acre feet of water. With the exception of about 2000 yards, no horse power was employed for dirt moving. The two Cletracs and a LaMoure County caterpillar have furnished the necessary power.

On the Jangula Dam of 9600 cu. yds., the fill was placed with two dump trucks loading from an elevating grader (donated by McIntosh County). Approximately 600 yds. a day were moved by this method. This dam, located on a dry coulee run, will now make a nice breeding pond for wild game as well as help water conservation.

The earth moving outfit mentioned above is now putting in the Boschee dam fill located on Beaver Creek 20 miles south of Wishek. This project will now make a total of six dams placed on this creek, which enters the Missouri. These dams will now do their bit to retain some of North Dakota's meager rainfall in North Dakota. Three of these dams were built last year by the Wishek camp.

Two dams are nearing completion at the Edgeley sub-camp with a force of 50 men who are quartered in the city Armory. These dams are very accessible to the public. The KaDell dam is a quarter of a mile from US Highway No. 281 and one mile north of Edgeley. The Byrne dam is one mile from ND Highway No. 13, five miles southwest of Edgeley. Two LaMoure County tumblebugs were used here with the Cletrac and the County Caterpillar.

Much public interest is being shown in this work since the benefits are becoming apparent. The dams constructed here last year as well as those now being built are almost all full of water due to the recent heavy rains. This water conservation is raising the local ground water elevation, providing livestock with water, and furnishing recreational spots of which many local people are availing themselves. These benefits are now generally realized.

O. P. Baukol,
Camp Superintendent.

Camp SCS-2, New England, North Dakota.

Everyday scenes at Cedar Lake, where the workers and supervising personnel of Camp SCS-2 are constructing the largest CCC dam in North Dakota, may be a glimpse into the future of the dam construction work as carried on by the Soil Conservation Service of the United States Department of Agriculture.

Each year of CCC work in the Northwest has shown an improvement in equipment and the resultant ability to do more work in the allotted time. Camp SCS-2 was able to add equipment for this major project through the cooperation of the North Dakota State Game and Fish Commission, which allotted $1000 to assist in constructing this dam near the intersection of Slope, Bowman, Hettinger, and Adams Counties. Slope county donated the use of a 60 horsepower caterpillar tractor and an elevating grader. Rented equipment includes two rooters, three tractor fresnos, one four horse fresno, five dump wagons, two plows, all financed through the commission fund. Interested farmers from the four counties have cooperated by donating teams and labor. The two Cletracs belonging to the camp have been continuously busy pulling fresnos and dump wagons.

When completed, Cedar Lake Dam will be approximately 590 feet long and 31 feet high. About 35,000 board feet of sheet piling have been driven in as a core wall. There is an indicated reservoir of 225 acres upstream from the dam, that will hold 2750 acre feet of water.

Camp SCS-2 has nearly 3000 acre feet of water reservoir on its 1935 schedule of construction and repair. Four smaller earth dams with rubble masonry spillways have already been constructed near the main camp at New England. Three dams constructed in 1933 near Hebron, North Dakota, are being repaired by a side camp section of about sixty men.

Farmers in southwestern North Dakota have shown a keen interest in the dam building program of the Soil Conservation Service. More than one hundred separate applications for dams have been made to the main camp office at New England during the summer and a number of inquiries were made on the opportunities for getting dams within several years if not possible this season. Perhaps the drouth of 1934 was an added incentive for these farmers to try to get a lake in their vicinity constructed by the CCC, for last summer a number were forced to sell their stock for lack of water and grass. Noted exceptions were those farmers who had little earth dams, some poorly constructed, which held enough water to carry their herds over the summer drouth.

Robert M. Connolly,
Junior Foreman.

CAMP SCS-6, LAKOTA, NORTH DAKOTA.

Along with old man winter staring us in the face, comes the necessity of the completion of all projects within a limited time.

With the aid of heavy equipment owned by Nelson county and several dump trucks loaned to us by the Valley city camp, work has been greatly speeded up. For the past two weeks the camp has been operating on a double shift making it possible to keep all equipment in motion 12 or more hours a day. As much as 1000 cubic yards of earth fill has been placed on a single project in a day.

Brown O. Lokken, Educational Adviser, for Company 2760, has arranged a camp paper which will be printed regularly, Mr. Lokken received his appointment to the Company only a short time ago. His ambition is to have every man in camp active in at least one educational subject. He has arranged with members of the Soil Conservation Service to aid in carrying on this work. Subjects taught by the SCS will include surveying and the construction of dams, also work along business lines.

Gene Hintgen, one of the foremen of this camp, who has been with us since May, resigned to take up a four year course in Cornell School at Ithica, New York. Mr. Hintgen will be missed at this camp.

Lieutenant R. E. Fredeen, who has been with this company for eleven months and was recently transferred to a company now located at Mohall, North Dakota, to become commanding officer there, has been replaced by Lieutenant D. R. Johnson.

Lieutenant Harris, member of Medical Reserve Corps, has arrived at this camp to take up the duties of Lieutenant H. I. Yaffee who is spending a two weeks vacation at his home in Minneapolis.

28 new junior enrollees were added to Company 2760 during the month of August. This brings the present company strength up to 196.

Niel E. MacDougal,
Camp Superintendent.

CAMP SCS-2, PRESHO, SOUTH DAKOTA.

Camp SCS-2, located at Presho, is rapidly completing the dirt work at the Hussman Dam. Repairs necessary on the elevator grader have delayed the dirt moving operations, otherwise dirt work on this project would be completed to date.

During the delay, the trucks and men were used for hauling stone, to be used for rip-rap, from Medicine Butte located four miles north of Reliance, or 27 miles from the project. Approximately 120,000 square feet of rip-rap will be required to face the dam and protect the fill from wave action during the period of time required to fill the reservoir to its normal capacity.

Plans have been received and materials ordered for the primary spillway. Part of the material has been received and placed at the construction site, and concrete work will be under way in the near future.

A number of men have been working at the Nail Creek Dam for the past week cleaning the existing fill and preparing the site for dirt moving. The equipment will be moved to this dam in the near future. Part of the core trench has been excavated and filling operations are in order. The filling operations of the core wall and embankment fill will be carried on in the manner used at the Hussman Dam.

The embankment fill is 2200 feet in length from primary to secondary spillway. Proposed plans are that the top will be 28 feet in width and a maximum height of 30 feet. The base will be approximately 200 feet in width where the fill is greatest. The face of the dam will have a 3 to 1 slope to a point 14 feet from the top, where there is an 8 foot berm, then the slope will be 4 to 1 to the natural ground level. The back side of the dam will have a 2 to 1 slope.

The primary spillway is approximately 1200 feet in length and 50 feet wide. A concrete overfall similar to the one to be constructed at the Hussman Dam, will be built.

The secondary spillway will be 1100 feet in length and 100 feet in width. Material excavated from this spillway may be used in the embankment as it is a gumbo composition and very satisfactory for earthen dam construction.

The drainage area of this project is 22,000 acres, considerably larger than that of the Hussman Dam; and the impounded area will be 819 acre feet of water or 268,000,000 gallons when the dam is filled to the normal capacity.

Don Williams, Camp Superintendent,

Presho, South Dakota.

"BY THEIR DEEDS ---"

Dr. Curtis F. Marbut, - for twenty-five years Chief of the Soil Survey of the United States Department of Agriculture, died in Harbin, Manchuria on August 25, 1935. He was one of the world's greatest authorities on the classification and mapping of soils and was President of Commission V on Soil Classification at the Third International Congress of Soil Science held in England during the first week in August.

In addition to his work in soil classification in America, Dr. Marbut had examined and classified the soils of every country in western Europe, except Spain. He was familiar with the soils of Russia, had made a study of the soils of South America, and had directed the classification of the soils of Africa. At the time of his death, he was on his way to make a study of the soils of China at the request of the Chinese Government, but the strenuous journey from England to China by way of Moscow was more than his 72 years could withstand.

The death of Dr. Marbut in a foreign land recalls the death of Dr. C. G. Hopkins in a hospital in Gibraltar in September, 1919. Dr. Hopkins was for many years Agronomist at the University of Illinois and carried on an aggressive campaign of education and research in soil fertility and permanent agriculture. At the time of Dr. Hopkins' death, he was returning from Greece where, at the invitation of the King, he had made a survey of the soils of that country and planned a system of soil management which would maintain soil fertility.

While the bodies of these two soil scientists were made from the dust of America, their life work belongs to the world and although their last moments came while far from home and intimate friends, this very fact is evidence that they were the friends of all humanity.

The labor of Marbut and Hopkins, as well as those of a host of other soil scientists who gave their lives to the work, have laid the foundation of fact upon which a program of soil conservation is builded. For the peoples of the world they have left a precious heritage.

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UNITED STATES
Department of Agriculture
Soil Conservation Service,
Huron, S. D.

H. J. Clemmer,
Regional Director.

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DAKOTA ZEPHYR

SOUTH DAKOTA STATE FAIR SPECIAL EDITION.
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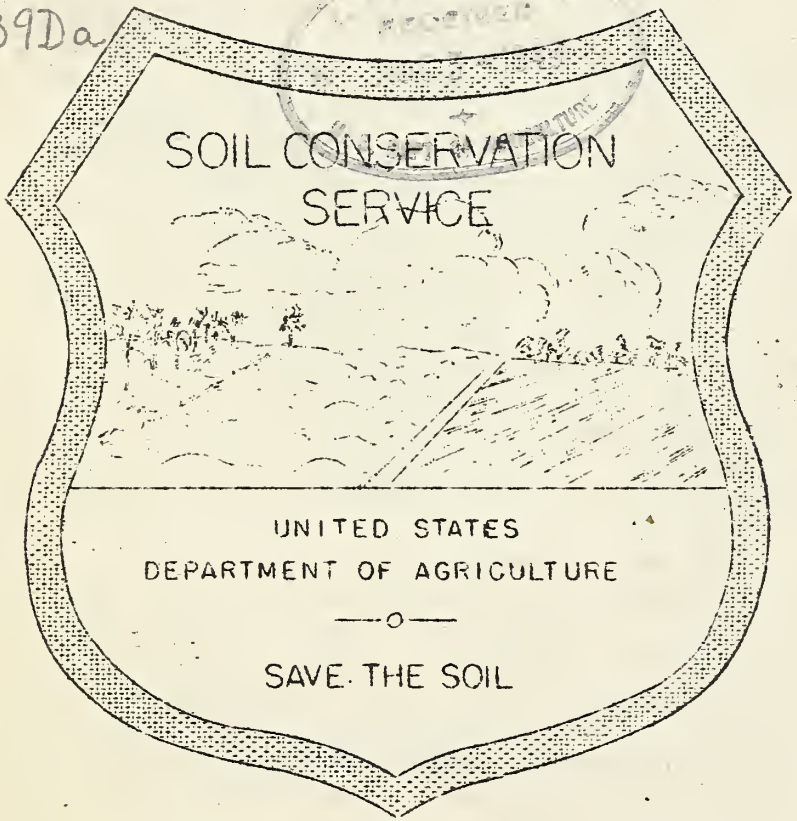


SOIL CONSERVATION PROJECT NUMBER 33,
Huron, South Dakota
H. J. Clemmer, Regional Director.

WHAT IS THE SOIL CONSERVATION SERVICE?

The soil Conservation Service is a part of the United States Department of Agriculture. It came into existence because of the necessity of saving the soils of the nation.

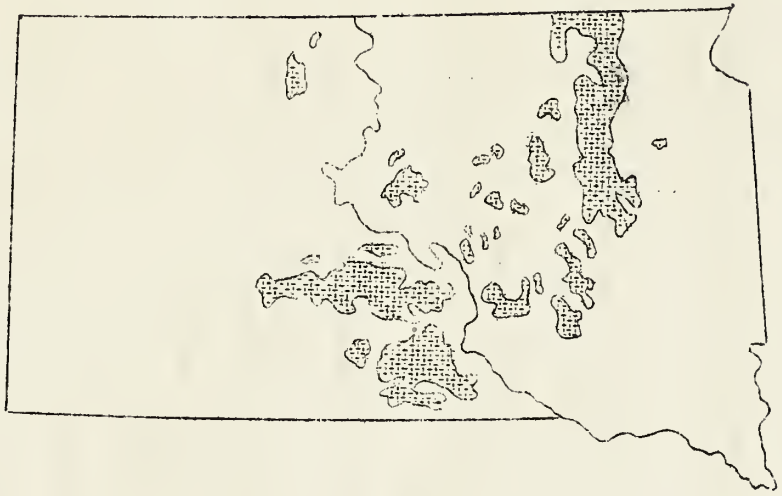
Erosion, the removal of soil from the fields by wind and running water, has destroyed many millions of acres of land once fertile and productive. The great increase in the acreage of land which is being ruined by erosion following wasteful methods of farming threatens the existence of the nation. Erosion control thus becomes a national problem.

Soil conservation consists not only in repairing damage done to soils by gully formation, sheet erosion, and wind erosion, but in the prevention of these destructive processes on soils not yet affected. Such a program involves the whole business of farming and includes, soil management, crop and livestock production, farm management, tree plantings, game and wild life and water conservation.

In many places gully and sheet erosion control and prevention involve engineering activities in the construction of dams and terraces. These structures frequently serve as water conservation devices. Soil Conservation Camps are rendering important service in many localities in the United States in soil and water conservation.

About forty regional projects with a number of secondary projects have been established. The South Dakota project established this year is Number 33.

THE CHIEF WIND EROSION AREAS IN SOUTH DAKOTA
ACCORDING TO THE SURVEY MADE BY THE SOIL CONSERVATION SERVICE, 1934.



The demonstration projects of the Soil Conservation Service in South Dakota include the Wolsey Area, 46,000 acres; the Shue Creek Area, 14,400 acres; the Winner area, 49,280 acres. Soil Conservation Camps are located at Alcester, Chamberlain, and Presho.

WHAT THE SOIL CONSERVATION SERVICE HAS DONE.

Cooperative agreements with tenants and owners have been signed for 128 farms aggregating 30,780 acres in the Wolsey and Shue Creek areas.

Additional requests for cooperative agreements have been received from 137 farmers operating 45,660 acres of land.

Detailed erosion surveys have been completed on 38,980 acres of land in the project area.

Terracing for soil and water conservation is in progress on 160 acres.

Soil drifts have been cleared from 7,139 rods of line fence; 103 acres of drifted land has been leveled; 889 acres of blowing land has been listed.

Under the agreements now in force, there will be:

Strip cropping (stripping)...	15,778	acres;
Retired to permanent hay or pasture.....	4,092	"
Increased acreage erosion resisting crops.....	12,947	"
Proper rotation on.....	21,524	"

Seeds distributed for erosion control:

Alfalfa.....	10,762	pounds;
Sweet Clover.....	16,243	"
Brome grass.....	5,806	"
Oats.....	6,271	bushels.

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If you are interested in soil conservation, call at the field office one block west of the Marvin Hughitt Hotel, Huron, S. Dak.

WHY IS SOIL EROSION INCREASING?

Under natural conditions, the soil is usually protected by a covering of plant growth-trees or grass. When the natural vegetation is destroyed and the soil is left bare, wind and running water attack it and often remove it from the fields, piling it in drifts or washing it away to the sea. Farming always destroys natural vegetation and often leaves the soil bare, thus favoring erosion.

Recent dry years in the Great Plains area reduced the growth of vegetation, natural and cultivated. The feed demands of stock have been relatively greater and, in some places, grasshoppers have eaten everything. Dry weather, bare soils, and strong winds all favor soil drifting, but they are not the only factors concerned.

There has been a steady decrease in the amount of soil organic matter, or humus, because little organic material has been plowed under, burning having been the more convenient way of disposing of it. The decrease in humus supply favors the crumbling of soil granules into separate soil grains easily blown when left uncovered. Even the granules of heavy clay soils have crumbled into smaller granules until they blow like sand.

Rain alone will not stop soil blowing. It will help but some soils will blow again within a few hours after a rain. The decrease in soil humus goes steadily on at the rate of about [illegible] per year and the tendency of the soil to blow just as steadily increases. This is a serious matter.

Control of soil drifting depends upon keeping the soil rough, keeping a crop cover on the land; restoring the supply of soil organic matter.

ORGANIZATION OF THE SOIL CONSERVATION SERVICE

The following divisions are recognized in the organization of the South Dakota project: Soils, Agronomy, Engineering, Forestry and Game, Farm Management, and Education. Each of these divisions is in charge of a competent, well trained, experienced man who has one or more competent assistants.

The Soils Division makes detailed soil and erosion surveys of cooperators' farms.

The Agronomists take care of crops, crop rotations, tillage and cultivation methods.

Engineers operate tractors and graders to level fence drifts and smooth drifted fields. Deep listing is also done with tractors. Engineers also construct terraces and dams to conserve water on the land or for stock.

The Forestry Division is concerned with the planting of trees for wind breaks and for beautifying farmsteads. This division also has charge of the conservation of beneficial wild life and the management of game production.

The Farm Management Division is concerned with the general farm plan including the production of crops and livestock and the marketing of the same. It also conducts social and economic surveys within the project area.

The Division of Education and Information collects information including photographs, lantern slides, and motion picture films; publishes news items and the news letter; conducts educational programs including lectures and radio talks.

RECOMMENDATIONS FOR WIND EROSION CONTROL

Keep the land rough by furrowing at right angles to prevailing wind direction.

Avoid pulverizing soils that blow.

Divide large fields into strips and alternate row crops with small grain and other close growing crops. This is called "stripping" or strip farming. The strips should be at right angles to the wind, if possible.

Use a crop rotation which will keep the soil covered throughout the year. The "Dakota Rotation" corn, small grain, and sweet clover is a good one for general use.

Use more grass and legume crops in strips. Seed down to grass for a number of years, or permanently, badly blowing fields.

Use winter rye for a cover crop. Rye is hardy and provides cover for soils when blowing is most likely to occur.

Turn back into the soil all crop residues including straw, stalks, stubble, and weeds. Plow under all animal manures produced on the farm.

Avoid over-pasturing stalks and stubble Burn no straw, stalks, or stubble.

If corn or cane is cut for ensilage a winter cover crop should be seeded as soon as possible. Where possible, strips of stalks should be left standing.

Do not summer fallow or fall plow any land subject to blowing.

Terrace where desirable and follow with contour farming. This is a water conservation measure in this project to keep the water where it falls.

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S A V E T H E S O I L.

THE SOUL OF CONSERVATION

O Country mine!
With far-flung pastures,
Fields, and orchard-lands;
With forests ever green
Or painting Indian Summer's glory;
With feathered singers, bold or shy,
And feathered air-fleets winging high
To tell the changing season's story;
With rolling rivers, springs,
And singing brooks;
With wild flowers brightening
Woodlands, fields, and nooks:
To you I pledge allegiance
That our flag may always wave
Over fruitful land,
Good, fair women
And good, brave men;
To you I pledge my heart and hand
To help to foster and to save
The precious gifts
That Mother Nature gave
Our Nation.

J. G. Hutton